TERMINOLOGY OF THE SPORANGIAL STRUCTURES OF EQUISETUM.—Several years ago a population of *Equisetum* × *litorale* with many abnormal cones was discovered by Dr. W. H. Wagner, Jr., near Milan, Michigan. The population was extensive, and had invaded an old bean field. In this dry, sandy habitat, atypical for this hybrid, the strobiliferous stems frequently had cones with proliferated tips (*Fig. 1*). The apex of the cone, instead of ceasing growth as it usually does, reverted to a vegetative condition. This type of teratology has been previously recorded in various species of *Equisetum*, and Gluck,[1] Kashyap,[2] and Tschudy[3] have described the intergradation of fertile and sterile appendages associated with the transition from the strobiliferous to the vegetative apex. The same intergradation, seen here in *E.* × *litorale* (*Figs. 2–7*), reveals an innate capability of the appendages produced by the apex to develop either as vegetative leaves or as sporangium-bearing structures. This indicates that the two structures are homologous, and that the term "sporophyll," a more exact term than "sporangiophore," should be used for these structures. Tschudy[3] argued for the term "sporophyll" on the basis of teratology in *E. telmateia*, and I wish to reiterate it here on the basis of teratology in *E.* × *litorale*.

Since the leaves of Lycophytina, Sphenophytina, and Pterophytina are all apparently independently evolved, calling their sporangium-bearing structures "sporophylls" does not imply any homology between the sporophylls of these groups, but only between the leaves and sporangium-bearing structures within each group.—*Richard L. Hauke*, DEPARTMENT OF BOTANY, UNIVERSITY OF RHODE ISLAND, KINGSTON, R. I. 02881.

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[1] Die Sporophyllmetamorphose. Flora **80**: 303–387. 1895.

[2] Some abnormal cones in Equisetum debile. J. Indian Bot. Soc. **9**: 240–241. 1930.

[3] The significance of certain abnormalities in Equisetum. Amer. J. Bot. **26**: 744–749. 1939.

Fig. 1. Cones of E. × litorale showing proliferation of the tips. Figs. 2–7. Series of selected appendages from the cones in Fig. 1, from a typical sporophyll to a nearly typical sheath segment (leaf).